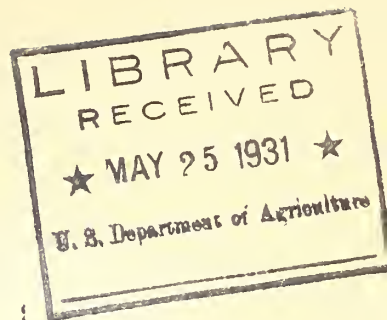


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STEM RUST AND BARBERRY NEWS

Issued by

Division of Barberry Eradication

Volume II

May 15, 1931

Number 2

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Bureau of Plant Industry  
U. S. Department of Agriculture

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## STEM RUST AND BARBERRY NEWS

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### BARBERRIES THAT RUST IN THE SPRING

By Ralph U. Cotter, Associate Pathologist,  
Division of Barberry Eradication

When the barberry agents fare forth in the "bloomin'" spring time to discover and lay waste the elusive barberry, one of the first things they have to consider is the question as to when a barberry rusts, what kind of rust is present and the possible grass or cereal hosts of each variety of stem rust.

Any young or tender barberry tissue may rust, so one should be on the watch for rust on barberries from the time that the leaf buds begin to unfold until the blooming period is over and the berries are formed. Infection has been found only on the leaf spines in some cases, indicating that the telia were germinating before the barberry leaves had unfolded. In other cases there was little or no infection on the leaves of the barberry, while the berries were uniformly and heavily rusted, indicating that the teliospores germinated several weeks later than in the first instance mentioned. If the barberries under observation are not readily infected due to lack of viable teliospores near-by or of continuous moisture for periods of twenty-four hours or more, no rust may appear.

A few barberries, principally those of the Berberis thunbergii group, are immune to the attack of black stem rust. In the susceptible group there are a large number of introduced species and also some native species, such as Berberis canadensis in Illinois and Indiana and B. fendleri and M. fremontii in Colorado. In Texas, the potential sources of much of the stem rust inoculum for the Mississippi Valley are to be found in M. trifoliolata, M. fremontii, and M. swaseyi, all of which rust readily under greenhouse conditions and which are found in numbers in the hills of the Lone Star State.

As to the probable variety of stem rust present on the barberry, one can only hazard a guess if there are no near-by rusted grains or grasses. If quack grass is rusted, the rust strain present is in all probability the rye stem rust. If orchard grass is rusted the rust may be of the oat strain. If any of the wheat grasses are rusted and quack

grass is rust-free, the strain is probably the wheat strain. If red-top or blue-grass is rusted, in all likelihood the agrostis or poae strains of rust are present. If wheat, oats, or rye are rusted, the answer is obvious, but if barley is rusted either the wheat or rye stem rust may be present or even both. Timothy may carry the timothy strain of stem rust or, more rarely, the oat stem rust. These are the more common determinations but occasionally there are deviations from these general rules. Whether these differences are due to hybridization or not, we are not entirely certain but from experimental results it appears that there is no good reason why the crossing of two physiologic forms or even varieties may not occur on the barberry with the consequent production of new parasitic entities of stem rust. These may be more virulent on one host than the other or less so or may even attack the hosts in both parental groups.

One of the reasons why the epidemiology force is so eager to get as many aecial collections as possible is the desire to determine whether or not hybridization in the field is a comparatively common thing and to obtain information concerning hybrids which may possibly result from this chance assortment of forms or varieties of stem rust in nature.

#### ACTIVITIES OF CLERKS IN FIELD OFFICES

By Roy Calhoun  
Junior Administrative Assistant

While the clerks in the field offices have many duties which might not occur to us here, there are others which stand out as being particularly good examples of work by which such employees can make themselves invaluable to the Division. We know that the matters which are mentioned below are already being taken care of by the office forces in the field but as is the case with most jobs, improvement can usually be accomplished by occasionally stopping to consider the details of our work.

The leadership of the field offices is of great importance and by that leadership the strength of the individual offices is largely measured. The work of the clerks is so closely related to this that any discussion of the efficiency of the field offices invariably include the clerical activities. Some of the matters with which the clerks assist and in which most of the routine can be handled for the Leaders are listed below:

The routine and mechanical operation of keeping the books, checking statements, etc.

Assisting in getting appointment data ready and applications in shape to send to Washington well in advance of the effective date.

The clerks should be thoroughly familiar with the fiscal, administrative, and property regulations; the memoranda sent out from this office; especially those which involve more or less routine matters, including B. E. Memorandum No. 156. This latter memorandum will furnish the basis for auditing and correcting vouchers. The data contained is of course based on the Fiscal Regulations.

The complete checking of expense accounts is of great importance. Some of the matters to be observed in checking these accounts are as follows:

1. Check name of employee near the top of the voucher and also in the attestation to see that they agree exactly. Titles should be checked to determine whether correctly entered.
2. The address, headquarters, and period of voucher should be checked.
3. See that account is properly attested by an authorized person subsequent to the completion of the period for which the account is submitted.
4. Check Letter of Authorization number and date on first page.
5. Check the addition of the account throughout.
6. The appropriation stamp is inserted in the Division of Barbary Eradication in Washington.
7. Computation of per diem, sub-vouchers, and itemization of various purchases should be checked for correctness.
8. Corrections on an expense account should be initialed by the payee. Corrections on sub-vouchers should be initialed by the payee of the sub-voucher.
9. The space on the inside of the first sheet near the top should be filled out in detail and the voucher should show the location of the employee at the beginning of the period as well as the date of arrival.
10. All subsistence expenses should be entered in the subsistence column. This can be checked with the standardized Government Travel Regulations to determine what items come under the heading subsistence.
11. Expenses other than subsistence should be entered in the "Other" column.



12. Express accounts should be compared with Letters of Authorization to determine whether expenses are in accordance therewith and to make certain that the employee did not exceed his authority.

13. Vouchers submitted covering actual subsistence expenses not to exceed \$7.00 should be checked to determine whether the totals of each day is within this limit.

14. Where meals, lodging, and other expenses are obtained at no charge, this should be stated.

15. Entries should be placed in the accounts in chronological order.

16. The time of leaving the official station and time of arrival at and departing from points in the field should be shown, as well as the time of returning to official station.

17. Where an employee works out from the same point for two or more days he should show whether a different territory is covered on each date.

18. Official telegrams should be sent at government rate and copies of telegrams may be used as sub-vouchers.

19. Sub-vouchers are to be attached for lodging, and for meals if paid for at the end of a more or less extended period.

20. Sub-vouchers are required for laundry. However, the usual receipt given by laundries is acceptable as a sub-voucher.

21. Purchases in excess of \$1.00 from any one firm on a particular day should be supported by a sub-voucher.

22. Equipment which is to be accounted for on the inventory should be recorded as the voucher is checked.

23. All sub-vouchers must be signed in full (not initialed), showing title of Agent or other employee.

24. Sub-vouchers should be numbered in chronological order and these numbers inserted in the account in the space provided.

25. A weekly itinerary report should be completely filled out and turned in with each expense account. This should correspond with the information shown in the body of the account.



26. Where a personally-owned car is used, the usual itinerary for this should be inserted in the account and the total carried forward to the body of the account in one item.

27. The expense account should show with whom the employee traveled and whether in a government-owned car or personally-owned car.

28. Items covering two fiscal years should not be included in the same account since they are paid from different appropriations. Expense accounts should be signed by the Leader in Charge and itinerary initialed. Forms 1034 should also be signed and payrolls initialed.

29. Where an employee purchases scrip by transportation request, a purchase slip must accompany the voucher.

30. Report of scrip used in duplicate must accompany the account.

31. Numbers of transportation requests used should be entered on the back of the expense account.

32. Where an advance of funds is involved the pink slip, Form 1039, should always be attached.

33. When a 1034 voucher is returned and a new one is to be prepared and submitted for payment, it should have the incorrect voucher marked "cancelled" and attached to the new one.

34. A 1034 voucher should always have the slip attached showing the payee's name and address, (period of) purchase, and person furnished articles purchased.

35. 1034 vouchers for repairs should have a statement inserted that repairs were made on government-owned property.

36. 1034 vouchers can not be submitted for payment until date of delivery has expired.

37. All payrolls to have indicated on the carbon the project to which salaries should be charged.

38. On all payrolls for employee's paid under Letter of Authorization, show title of employee and state on payroll (not on separate letter) nature of duties performed.

39. Any fee whether porter or bell boy for the transportation of baggage should be listed in the "Other" column.

The clerks in the field offices should not hesitate to suggest to the Leaders that vouchers go back for correction where they contain errors, etc., which might require their return from Washington. Returning an expense account for the purpose of avoiding a minor suspension would not be sufficient reason for returning the account to the Agent for correction since the suspensions can be reclaimed.

The more experienced clerks find it advisable to maintain an adequate tickler system to aid in following up correspondence and other matters which require current attention. This will frequently help the Leaders to avoid delays in handling matters which are in course of correspondence. (May 1)

#### REVISED MAILING LIST FOR STEM RUST AND BARBERRY NEWS.

During the season 1930 a mailing list for the Stem Rust and Barberry News was compiled in this office of the names of those co-operators and others who were interested in the barberry eradication project. This list was made up very largely from the names sent in by the various Leaders early in the season. We should like to have each Leader send in the names of his cooperators to whom he would like this mimeographed news sheet sent direct, in order that our mailing list may be revised and brought up-to-date.

#### EPIDEMIOLOGY

(Reported by Miss Laura Hamilton)

Personnel and organization of the epidemiology studies this year are for the most part the same as in 1930. Mr. Butler, who has been making overwintering studies in Texas, will spend full time beginning June 1 in following the progress of stem rust northward. Mr. Ukkelberg left St. Paul April 2, looked for overwintering enroute,

particularly in northern and central Texas, and has recently completed the Mexican rust survey. Mr. Hines has been preparing slides for exposure, and has begun the physiologic-form identification of collections made in Texas and Mexico. Mr. Walter, who examined slides last summer, will do similar work this year, and in addition will make field observations in Minnesota when required. G. Herman Starr, formerly of the South Dakota eradication staff, was appointed recently to make a rust survey of barberries in northern Kansas and Missouri and later will study the spread of rust from infected bushes at certain selected locations in the same territory.

Airplane slide exposures have been arranged again this year, through cooperation with the War Department, at the following Army flying fields: Kelly Field, San Antonio, Texas, Dallas, Texas; Fort Sill and Muskogee, Okla.; Fort Riley, Kans.; Chanute and Scott Fields in Illinois; and Wright Field, Dayton, Ohio. Mr. Bills will make the flights in Illinois, and Mr. Atwood has made the arrangements at Dayton. Elsewhere for the most part Mr. Uckelberg will make flights and expose slides.

Stationary slide exposures also have been planned. In Texas Mr. Butler and Mr. Uckelberg have exposed slides, Dr. C. O. Johnston will make exposures this month at Manhattan, Kansas; and Barberry Leaders are planning exposures at one or more locations in each State of the Eradication Area. In addition, in eastern Nebraska, Mr. Yount has secured cooperation for slide exposures at 12 stations, where slides will be exposed simultaneously and under as nearly identical conditions as possible.

Infection is appearing on barberries somewhat later than in 1930. Pycnia were observed between April 30 and May 7 in Illinois, Indiana, Ohio, Wisconsin, and Minnesota; and immature aecia were found in northeastern Missouri during the same period.

In Mexico, according to Mr. Uckelberg, more wheat has been planted than usual, and "is in much better condition" than in 1929 and 1930. The stem rust situation was much the same as last year in the southernmost area surveyed, comprising Puebla, Mexico City, and Atlixco, and in an area farther north at Torreon and Saltillo. Between these areas, however, in the Queretaro-Celaya-Leon section, infection was heavier and more general, ranging in severity from 5 to 60 per cent. Most wheat was then in the dough stage, although late fields were only flowering. Rust would cause considerable



damage in some fields. Infection also was heavier than in 1930 in the Monclova area, which is west of southern Texas. "A general epidemic is present here," stated Mr. Ukkelberg on May 1, "and conditions for rust development are excellent. One late field observed, now in the flowering to milk stage, will probably not be worth harvesting, as the infection is 80 per cent in severity." Earlier fields were less severely rusted, but it appeared that damage would be caused in most of them.

Observations made by Mr. Butler in Texas the last of April (24-29th) indicated that stem rust had overwintered in the fields of oats in the area extending from Kenedy, which is southeast of San Antonio, to Waco. Observations farther north are now (May 9) being made by Mr. Ukkelberg. On wheat also Mr. Butler found "unmistakable evidence of overwintering" at Santa Anna (Coleman Co.), and rapid reproduction had begun on the stem rust overwintering plot at Stephenville (Erath Co.)." Aside from the fields in which stem rust apparently had overwintered or to which rust had spread from such areas, no infection was found either on wheat or oats. In the area between San Antonio, Cliff, and Castroville, there had appeared a light scattering of infection on durum wheat probably about the middle of March. (May 9).

#### EASTERN REGION

Ohio - 8 East Broad St., Columbus - Harry Atwood.

Infection on barberry, in Ohio, is developing later than usual. Our first collection of barberry leaves showing pycnial infection was made on May first at Columbus. Pycnial infection was also found near West Carrollton, Montgomery County, on May fifth. Several barberry locations, from the Ohio River to Lake Erie, were observed but no other infection has been found to date.

At present airplane flights are being made from Wright Field, Dayton, Ohio, for the purpose of exposing slides in connection with epidemiology studies. These slides are being exposed at various altitudes, ranging from 1000 to 10000 feet, and extending over the entire southern part of Ohio. These flights will be continued until May 11.

On May 1 Sanford L. Jordan joined the Ohio barberry field agents and on May 4 Elmer W. Henry went into the field. At present eight men are doing intensive, systematic second survey in Champaign County.

During April barberries were found and destroyed in two towns within the area surveyed. Recently escaped barberry bushes were found growing in Mad River Township. The farmers of this neighborhood report that black stem rust is generally found in their wheat and oat crops. They were pleased to learn that the barberries had been found and destroyed.

Indiana - Purdue Experiment Station Annex, West Lafayette - W.E. Leer

Mr. McCoy has just completed the school work for the year. During the school year 1930-31, approximately 20,000 school children were reached with either the movie film or the lantern slide lecture. The barberry program was well received by all of the high schools visited.

Pycnia were found on escaped barberry bushes about thirty miles south of Lafayette on May 4. The date is about the average for this locality.

A demonstration was placed at Purdue May 5 to 8, in connection with the annual 4-H Club Round-Up.

During the next ten days Mr. McCoy expects to follow up some leads received as the result of school work during the year, and has planned to award five Rust Busters Club medals to boys and girls for reporting barberry bushes. (May 8).

Illinois - Box 72, Post Office Building, Urbana - R. W. Bills

Field activities were started on April 2 when seven field men left for Northern Illinois. A large hedge of barberry bushes left from last year was destroyed at Braidwood in Will County.

One squad is working in Lake County, completing the city survey of the North Shore suburbs. This work will require several months' time. The other squad is at Oregon, Ogle County, working on rural survey in wooded areas. About 400 bushes were destroyed in April.

The State Department of Agriculture has furnished four field men for work in Ogle County. Additional men will be furnished in July.

Truck 3-235 was stolen while it was being used on survey at Fort Sheridan, Illinois, on May 7. A deserter from the army attempted to make his get-away in it. After driving 150 miles, he ran off the road, damaging the car and injuring himself. He was taken to the U. S. Veterans' Hospital at Dwight, Illinois, by a state highway patrolman, where he was placed under arrest and later taken back to Fort Sheridan by army officials. The car is being repaired.

First rust infection (pycnia) was noted on barberry in Ogle County on May 3 by Mr. C. E. Adams. Later infections (pycnia) were found by the Leader on May 6 at Stark and Whiteside Counties.

Inspections were made in Southern Illinois on April 23 in the winter wheat belt. No overwintering rust was found on last year's straw.

Slide exposures were made by airplane at Chanute Field on May 4 by Mr. G. E. Matheny. (May 11)

Michigan - Botany Building, Michigan State College, East Lansing.  
(Francis B. Powers)

Barberry eradication in Michigan previous to April 1 consisted largely of informational work. All of the schools in the counties to be worked this season were supplied with educational material and informed concerning the National Rust Busters Club. County agents were solicited by letters inquiring as to the number of various bulletins they had on hand and the number of each sample sent them they could use. A good response from 20 county agents came as a result of these letters. Several of them mentioned specific meetings where the bulletins were to be distributed, and two of them invited the barberry Leader to speak at meetings.

In Michigan there are now twenty-seven children eligible for membership in the National Rust Busters Club due to fifty common barberries reported and locations checked. Governor Wilbur M. Brucker has personally signed twenty-two life membership certificates, and these have been presented to N. R. B. C. members by the barberry Leader. The others are at present being prepared by Mr. Fletcher.

Since April 1 Mr. George S. McIntyre has been employed speaking to rural schools and high schools in Van Buren and Kalamazoo Counties. He has nearly completed his tour and has spoken to about 8,500 boys and girls concerning the common barberry and its relation to black



stem rust. As a result of his work several teachers have requested teaching material, and some of the barberry location reports made by boys and girls have resulted from his talks combined with the correspondence previously mentioned. The barberry office has had twenty letters from boys and girls who have enclosed twigs of bushes other than common barberry, mostly gooseberry. Before the leaves appeared this mistake was easy to make. Such reports were replied to with clear statements as to the difference between the mistaken plant and common barberry.

The Leader was invited to spend a day at the Kalamazoo Central High School where he spoke to twenty biology classes including 575 boys and girls. He also spoke to five classes at Western State Teachers College at Kalamazoo and supplied material and information at Kalamazoo College. He has recently spoken to other groups such as grade schools and Future Farmer Clubs.

May 1 a crew under squad leader Harry S. Hunter entered Wexford County to eradicate common barberries in some known escaped areas. During the first week Mr. Hunter reports the eradication of 240 bushes.

Neither pycnial nor aecial infection has been found by any of the men in the field.

Dr. R. U. Cotter, Associate Pathologist, Division of Barberry Eradication, spent the first week of May in Michigan inoculating Mahonia aquifolium plants with black stem rust in an endeavor to obtain additional evidence concerning the susceptibility of this species. The results of his work will be observed by the Leader. (May 11)

Wisconsin - State Capitol Annex, Madison - Vern O. Taylor.

The field season started in Wisconsin on May 1 with one squad working in an area of escaped barberries in Iowa County. The crew consists of one appointed agent and four laborers. Three of the laborers had experience on barberry work last year while the fourth man is of high school age. The latter is being used to find out if possible the feasibility of securing mature boys to work as laborers along with agents in scouting where barberries are not so numerous as they were in our Black Earth area.

Since beginning the work on May 1 the men have salted more than 100 bushes. The territory being worked is very rough and quite heavily wooded. It is fortunate that a crew was available at this time for the bushes can be seen easily due to the absence of leaves on the underbrush.

The first rust was found on barberry on April 30 in Madison township, Dane County. It was found in Primrose township of Dane County on May 3. An inspection of more than 30 bushes in Iowa County failed to reveal rust, although telial material was found close to the bushes.

Last year at Black Earth each squad worked efficiently with but one truck, and we plan to work that way again this season. In addition, it is thought the box recently placed in each truck may be used as a seat. We will be able to work to advantage with one truck for each of two other squads. The box will at the same time furnish a splendid place for maps, side curtains, and rust collections which are very often damaged when being carried loosely in the truck.

Mr. Harold Cate, who has been doing intensive educational work in the schools of Dodge County will terminate the work on May 9, and take over the duties of squad leader in Iowa County where the assistant is now in charge.

We received requests for study material from approximately 136 high schools in the State, and it was sent to them in the literature file cases furnished by the Conference. The lantern slide requests numbered 33, and the movie films were shown 27 times in the high schools and county normal schools of the State.

The educational material for rural schools was sent to approximately 2,400 rural and State graded schools in 24 counties of the State in the record time of three days after the lesson plans were received from the Washington office. We have received two barberry specimens to date as a result of this work.

An examination for prospective field agents is to be held at 7:30 on the evening of May 13. There are only four positions to be filled, and eight applicants have been invited to write the examination. (May 6)

WESTERN REGIONMinnesota - University Farm, St. Paul - Leonard W. Melander

The spring of 1931 goes on record as being an early one. However, for some reason or other the infection of barberries seems to be delayed. We have been unable to find infection on barberries to date in spite of the fact that leaves are developing rapidly and that we have had several prolonged showers.

Instead of emphasizing the informational phase of the weed inspection work, we are conducting an intensive school campaign. There are three men working in the same number of counties on this project. To date three locations of common barberry have been reported by school children in these counties. However, numerous specimens of other shrubs have been sent in and many tips have been investigated. This is indicative of the intense interest manifested by the school children in looking for common barberry.

Approximately sixteen counties in southern Minnesota have adopted the Redwood plan of weed survey and control. This plan was originated by the county agent of Redwood County, Minnesota, in 1930. Every township is organized. One man is appointed for each section to look after the weed inspection in his section. All of these men report to the township chairmen who in turn report to the county agent. The township units have periodical meetings at which weed control measures are discussed. With a man looking after weed conditions in each section, the common barberry will be given consideration. To assist in this we will see that every weed inspector receives the necessary information to identify and report common barberry. This program perhaps will continue over a long period of time. If we get all of these section men looking for common barberry these 16 counties should become free of barberry with but little effort on our part. (May 7).

Iowa - Morrill Hall, Iowa State College, Ames - D. R. Shepherd

An intensive educational project was started in Linn County on April 1. This project consists of work primarily with the rural schools wherein a representative of this office calls on each rural school in the county. At the time of his visit he leaves a filing case and some educational material for the school library which is



for the use of the teacher and the pupils. While at the school the representative makes a twenty minute chart talk to the pupils, explaining the nature of black stem rust and the common barberry and solicits their assistance in the eradication of the barberry which is the alternate host. He also explains during the course of his talk the National Rust Busters' Club and suggests that a club be organized in their school. In that he has left material, the set-up is complete for study of this subject. The charts we are using are of a cartoon type and appeal to children from grades one to eight in the rural and small consolidated schools. After the schools have all been visited the representative visits the schools again to check up and to see whether any bushes have been reported, and to organize the children in the Rust Buster clubs. In the schools that have been visited so far Rust Buster clubs have been organized, and from all indications we expect to receive quite a number of property reports. The teachers and the pupils have shown a decided interest in this type of work and have responded in all cases.

Mr. Brown, who is doing this work in Iowa, organizes the schools on his first visit into two competitive groups and these groups compete with each other, each trying to find the largest number of barberry plants. We should know in a week or two as to the exact results that we are going to obtain from this type of work. From all indications it is going to be very much worthwhile.

Six men began an intensive survey for the common barberry in Woodbury County on April 21. The early spring work will be confined to the timber along the Missouri River and to the outlying districts of Sioux City. We hope to have most of Woodbury County completed by the time the regular field work begins in June.

The training school for prospective agents has been organized, and we have about thirteen applicants and eighteen experienced men attending this school. We are holding one meeting a week. The squad leaders are given special attention this year in a separate training school in order to impress them with the difference between the job of squad leader and a field agent, and to bring about a feeling of responsibility that perhaps has not been stressed enough in the past. The field personnel will be very much the same as it was last year in that we have seventeen experienced men who are again applying for work, most of these will be selected for the work this summer.  
(May 4).

District No. 1 -- State College Station, Fargo, N. Dak.-- G.C. Mayoue

Montana and North Dakota -- During the month of March, Mr. Ivar Twilde, assistant leader in Montana, mailed to all of the teachers in 20 counties educational materials, including the lesson plan, literature, plates, and specimens. According to letters received from teachers, they were pleased to receive these materials.

During the same period, approximately 3000 North Dakota 1930 Progress Reports were mailed from the District Office to College and State officials, instructors, legislators, business men and farmers. Circular letters were mailed to all of the teachers in Barnes and Stutsman counties, North Dakota, and Dawson County, Montana, where Rust Buster organization work in the schools was completed last spring and fall. These letters reminded the teachers of the Rust Buster organizations in their schools and requested them to urge the students to look for common barberries this spring, summer, and fall.

A circular letter together with the current Progress Report was mailed to all former barberry agents of North Dakota. It is planned to put out a similar letter next year to all former agents in the District. This is a good means of keeping in contact with those men who cannot be seen personally. It probably will serve to keep them interested in the project and up to date regarding the subject. In their various lines of work ranging from teaching to all kinds of business, as well as farming, they have good opportunity to tell their neighbors, customers, and friends about the barberry eradication campaign.

All applicants of the district, including experienced and inexperienced men, were supplied with sets of questions pertaining to the barberry eradication campaign and requested to submit written answers in a neatly prepared report form. All of these answers are now on file in the District office. The purpose of asking applicants to answer such a set of questions was to give them a fairly good review relative to the subject matter available on the various activities of the campaign. They did a mighty fine piece of work in qualifying themselves for a position.

Messrs. Popham and Meier conferred at Fargo March 12 and 13 with the District Leader.

On April 6 three agents began the educational Rust Buster

work in Richland County and April 10 two agents started this same type of work in Sheridan County, Montana. The county superintendents of those counties have cooperated very willingly with the agents. They mailed to all of their teachers a circular letter announcing the agents and explaining their work. According to the men these letters have proved very helpful in making contacts with the teachers. They are preferable to a letter of introduction prepared by the county superintendent for each agent because the teachers are expecting the agents and know what they desire to do. With the letter of introduction used last fall it was sometimes necessary to make considerable explanation before the teacher was convinced that the agent was not a salesman.

The educational work in these counties has made good progress and will be completed early in May before any of the rural schools are closed. The District Leader has worked with the agents in both counties, observing their presentations in rural and town schools and making presentations which were observed by the agents.  
(May 1)

District No. 2 - State College Station, Brookings, S. Dak.-R. O. Bulger

Activities of the barberry eradication campaign in District No. 2 during the spring months have consisted largely of plans for the survey this summer, and educational work. Approximately sixteen men will be employed on survey in each State (Nebraska and South Dakota) this summer. At the present time, barberry schools are being held in order to better acquaint the prospective men with the subject matter and also to aid in the final selection of these men.

Mr. Yount in Nebraska is also promoting a squad leader's school in addition to his regular barberry school. He is making this quite largely an informal discussion of policies to be used in connection with survey, eradication, investigation, and other activities of the campaign. He reports that the school is working out nicely and he feels that the squad leaders will be better qualified to assume their responsibilities than they would be without this training.

As an advance move in the survey this year, visits have been made to the various editors and other business men in the counties to be surveyed this year. County agents were also interviewed and considerable information concerning the counties was obtained. Visits also have been made to most of the normal schools and colleges during



the spring months. In some cases, talks accompanied by slides, have been given to some of the special classes. It is hoped in this way that we may be able to keep in touch with those who will be going out into teaching positions in the future.

Mr. Frandsen, assistant leader in South Dakota, has been working on a project in cooperation with the general science division of the Sioux Falls high school. The instructor in charge of the general science work has inaugurated a plan by which the students' knowledge of plant life will be broadened. They are given the task of surveying definitely assigned blocks and naming the shrubs and trees growing on them. They are especially requested to look for common barberry bushes and to report them when found. Further credit will be awarded students who report common barberries. To date four plantings have been reported as a result of class-room education pertaining to this project. It is planned that eventually the entire city of Sioux Falls may receive such a survey by its local students. This city has a population of about 35,000. There are approximately 500 students enrolled in general science. (May 7).

District No. 3 - Agricultural College, Fort Collins, Colo.-E.A. Lungren

Spring is here; the teliospores of Puccinia graminis are germinating in Colorado and the barberry leaves are coming out. We have our crews organized in Colorado, Wyoming and western Nebraska, and the field work will start May 20 in western Nebraska. The other crews will start June 1 in Colorado and Wyoming. An intensive course for field men has been conducted in Colorado and Wyoming, and the selections have been made. There will be two teams of four men in Wyoming. Two teams of eight men in Colorado, including two men selected from the two counties where we plan to work, and one team of two men in Western Nebraska.

During the winter a new bulletin was printed in Wyoming and a circular in Colorado. These were published by the Extension Service in cooperation with this office. Our circular letters for the counties where we plan to work in these two States will be put out by the county agents in the counties where we plan to work. In Colorado the circular will accompany the letter.

During the winter months this year, considerable work has

been done on the educational campaign. We have mailed educational materials to many of the schools in counties in western Nebraska, Wyoming and Colorado. Lately we have been planning an intensive educational campaign for several counties to start next fall. The District Leader has conferred with the State Superintendent of Public Instruction in Colorado and the State Commissioner of Education in Wyoming. They are very much interested in our proposed intensive campaign and will work with us next fall. At the present time we are collecting data on all schools in all counties in the States of Wyoming and Colorado. It is also planned to do the same for western Nebraska; several counties will be selected for this intensive type of work from each State.

In cooperation with the Smith-Hughes instructor at the Fort Collins High School, a barberry week was conducted in his classes last month. The entire work was devoted to the study of black stem rust and the barberry. This was followed by an examination and awards were made for the highest grade. It was also planned to organize the boys and scout over one of the wild areas along the Poudre River. However, due to the bad weather on the Saturday planned for this trip, it was necessary to postpone the field trip for a later date. It is believed that the organizing of the barberry week in Smith-Hughes schools, if possible followed by a field trip, will aid considerably in keeping some of our areas cleared. This is an experiment and may be applicable to many sections in Colorado.

The following notice appeared in the North Dakota Agricultural College Summer Session Bulletin, March, 1931.

"Black Stem Rust and Other Rusts of Cereal Crops."

"A lecture course regarding kinds of rust and their identification in the field, life history of black stem rust and its relationship to the common barberry, physiologic specialization of stem rust, rust epidemiology, including sources, spreads, and effect of weather on its development, methods of reducing rust losses. During the period of this course one or two special lectures will be given by Dr. E. C. Stakman of the University of Minnesota, internationally known plant pathologist. The period of this course will be three days with two 1-hour daily lectures. Required of all students registered in botany. Third week, M T W at 8:00 and 1:30, one half credit. George C. Mayoue, District Leader, Barberry Eradication."

### Motor Fuel Tax Exemption Procedure

P. B. A. Circular 167 (April 14, 1931). - Circular Letter 42, January 16, 1931, of the Chief Coordinator, reads as follows: "Several instances have been brought to the attention of this office where field activities of executive departments and establishments are using standard forms 44 and 1066 (U. S. Government Motor Fuels Tax Exemption Certificate and Receipt) in connection with the purchase of products notably lubricating oil, upon which no State or local tax is assessed. It is deemed advisable to point out that in such instances where there is no tax assessment upon the product purchased the use of standard forms 44 and 1066 is clearly unnecessary and unauthorized. It is therefore suggested that heads of departments and establishments issue instructions to their agents so as to confine the use of these forms by their agents to the purpose for which promulgated."

Employees of the Department are requested to take note of the foregoing instructions. It is well to bear in mind that the exemption form is intended primarily as evidence to be presented by the exempting dealer to the State officers in support of his, the dealer's claim for rebate of taxes previously paid by him. If it can not serve this purpose, its use is obviously superfluous and unwarranted. (The Official Record, May 2, 1931).

### Group Health and Accident Insurance for Members of Department available.

Dr W. W. Stockberger, Director of Personnel and Business Administration, announces that the board of directors of the Department's beneficial and relief association, has approved a contract for group health and accident insurance submitted by the National Casualty Co., of Detroit, Mich. This type of insurance is now available to all employees of the Department in the United States (including all its possessions) and in Europe, at rates lower than those ordinarily charged under individual policies.

The plan adopted provides indemnities for disability from illness or accident ranging from \$10 to \$50 a week, beginning on the fifteenth day of disability and continuing as long as disability exists, not exceeding a total of 52 weeks. Department positions have been divided into two groups: A, non-hazardous occupations;

and B, hazardous occupations. The cost of the insurance for Group A employees ranges from \$3.40 semi-annually, for a weekly indemnity of \$10, to \$17 semi-annually, for a weekly indemnity of \$50. The cost of Group B ranges from \$4.74 to \$23.70 semi-annually. For a small additional premium accidental death and dismemberment insurance may also be obtained.

In announcing this plan Doctor Stockberger says that although the beneficial and relief association sponsors it and holds the master policy, it will be operated on a basis entirely different from the group life insurance plan in that premiums are payable semi-annually or annually directly to the National Casualty Co., which will also handle directly all claims. The association, however, will in case of any dispute, take action to protect the employees' interests.

Application blanks are being distributed as rapidly as possible, but any interested employee who fails to receive a blank within a reasonable time may obtain one by addressing the National Casualty Co., 1100 Barr Building, Washington, D. C. (The Official Record, May 2, 1931).